



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,394	07/13/2005	Katsufusa Fujita	01488P00190US	3085

32116 7590 07/11/2006

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER  
500 W. MADISON STREET  
SUITE 3800  
CHICAGO, IL 60661

EXAMINER

NGUYEN, TRAN N

ART UNIT PAPER NUMBER

2834

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/542,394

Applicant(s)

FUJITA, KATSUFUSA

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The disclosure is objected to because of the following informalities: the specification should NOT referring to claims for disclosing the detail or description of the invention, see Spec page 2 and thereafter.

Appropriate correction is required.

Also, the following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

## **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

Art Unit: 2834

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claim 1** is rejected under 35 U.S.C. 102(b) as being fully anticipated by **Ogawa et al (JP 63-2134363)**.

**Ogawa** discloses skew shape variable laminated iron core in which plural iron core pieces (2) are laminated through caulking projections (8) and caulking holes (7), in which the caulking projections are fitted, characterized in that in the iron core pieces, except a lowermost layer, the caulking projections (8) and the caulking holes (7) are respectively formed at different positions of a same radius from a rotation center at skewing of the iron core pieces (fig 2), and the caulking hole is longer in a circumferential direction than the caulking projection fitted in the caulking hole, and when the caulking projection of the iron core piece of an upper layer is

Art Unit: 2834

fitted in the caulking hole of the iron core piece, a gap is formed in the circumferential direction of each of the caulking holes (fig 3).

3. **Claim 1 and 3/1** (3/1 means claim 3 depends from claim 1) are rejected under 35 U.S.C. 102(b) as being fully anticipated by **Bertocchi et al (US 5,923,112)**.

**Bertocchi** discloses skew shape variable laminated iron core (figs 2, 4) in which plural iron core pieces (2) are laminated through caulking projections (3) and caulking holes (6), in which the caulking projections are fitted, characterized in that in the iron core pieces except a lowermost layer, the caulking projections (6) and the caulking holes (3) are respectively formed at different positions of a same radius from a rotation center at skewing of the iron core pieces (figs 2, 4), and the caulking hole is longer in a circumferential direction than the caulking projection fitted in the caulking hole (fig 4), and when the caulking projection of the iron core piece of an upper layer is fitted in the caulking hole of the iron core piece, a gap is formed in the circumferential direction of each of the caulking holes (fig 4); and,

as shown in Bertocchi's Figs 4A-B, wherein the caulking hole (6) is formed to pass through the plural laminated iron core pieces (2, 2A), and the caulking projection fitted in the caulking hole formed to pass through reaches to a lower part position of the caulking hole formed to pass through.

4. **Claim 1** is rejected under 35 U.S.C. 102(b) as being fully anticipated by **Oosawa et al (JP 58-116033)**.

**Oosawa** discloses skew shape variable laminated iron core (fig 12) in which plural iron core pieces (T1, T2) are laminated through caulking projections (12, 13) and caulking holes (10, 11), in which the caulking projections are fitted, characterized in that in the iron core pieces, except a lowermost layer, the caulking projections (12, 13) and the caulking holes (10, 11) are respectively formed at different positions of a same radius from a rotation center at skewing of the iron core pieces (figs 4-10), and the caulking hole is longer in a circumferential direction than the caulking projection fitted in the caulking hole, and when the caulking projection of the

Art Unit: 2834

iron core piece of an upper layer is fitted in the caulking hole of the iron core piece, a gap is formed in the circumferential direction of each of the caulking holes (figs 12-13).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2, 4/1 (or 4/2) and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over one of the individual **Ogawa** or **Bertocchi**, as applied in the rejections against the base claim, in view of level of ordinary skilled in the art.

***Regarding claim 2 reciting the caulking hole to have an arc shape***, the Ogawa laminated core's holes (7) or the Bertocchi laminated core's holes (6) are shown to be symmetric to a circular circumferential line (line "L" in the Bertocchi ref). Those skilled in the art would realize that in order for the holes to be symmetric to a circular line, the holes themselves would have to be in a substantially arc-shape or curve-shape. Due to the curve configure of arc-shape holes, the holes would provide firm abutment between adjacent laminated core plates and prevent any position displacement between thereof.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the caulking holes as an arc-shape. Doing so would provide firm abutment between adjacent laminated core plates and prevent any position displacement between thereof. Furthermore, it has been held that a change in size or shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955) (emphasis added).

***Regarding claim 4, the claim recites that the caulking holes include a first caulking hole formed in every second iron core piece of the iron core pieces in a lamination direction, and a***

Art Unit: 2834

*second caulking hole formed at a position different from the first caulking hole and to pass through the plural laminated iron core pieces, and the caulking projections include a first caulking projection reaching to a lower part position of the first caulking hole, and a second caulking projection reaching to a lower part position of the second caulking hole.*

Bertocchi discloses in a various embodiment (as shown in Figs 4A-B), the caulking holes (6) may be formed to pass through the plural laminated iron core pieces (2, 2A) and the caulking projections, and the caulking projection fitted in the caulking hole formed to pass through reaches to a lower part position of the caulking hole formed to pass through for the purpose of enabling the caulking projecting suitably increased in height, to engage two underlying laminations, or penetrate two caulking holes in these laminations for firm abutment and preventing laminated core plate being dispositioned.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the core by incorporating both the first and the second types of caulking holes as well as the first and the second type of caulking projections. Doing so would ensure that the caulking projecting suitably increased in height, to engage two underlying laminations, or penetrate two caulking holes in these laminations for firm abutment and preventing laminated core plate being dispositioned.

*Regarding claim 5 reciting the method of manufacturing the laminated core*, those skilled in the art would understand that **Ogawa** or **Bertocchi** each discloses detailed structure of the skew shaped laminated core from each individual laminated core plate's caulking holes and projections to how the entire core is constructed by caulking the laminated core plates. Therefore, it would have been obvious to an artisan with necessary and ordinary mechanical skills to devise a process of making the disclosed cores of respectively **Ogawa** or **Bertocchi** because method of forming the structural-detailed-disclosed device would be a counter part of the device itself.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to formulate a process for manufacturing the skew shaped laminated core of **Ogawa** or **Bertocchi**. Doing so would require only the necessary and ordinary mechanical skills of an artisan in the art since **Ogawa** or **Bertocchi** a process of making the disclosed cores of respectively **Ogawa** or **Bertocchi** each discloses detailed structure of the skew shaped laminated

Art Unit: 2834

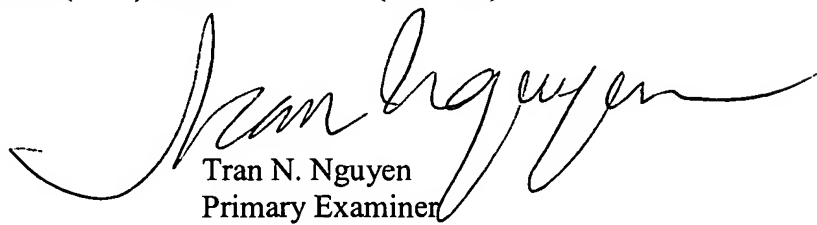
core from each individual laminated core plate's caulking holes and projections to how the entire core is constructed by caulking the laminated core plates, and method of forming the structural-detailed-disclosed device would be a counter part of the device itself.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tran N. Nguyen  
Primary Examiner  
Art Unit 2834